

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NOTES ON THE MAMMALS OF SOUTHWESTERN
MISSOURI.

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The brief notes which follow are intended only as preliminary notes on the mammals of southwestern Missouri. Duty in other directions than field work prevented a full and comprehensive study of the fauna of this much neglected section of our country. The author hopes, in the near future, to continue his research in this district, and at such time a more complete list with more elaborate annotations will be published.

Didelphis virginiana Kerr.

OPOSSUM,

Opossums are common along the osage hedges and in the scattering timber along the creeks. It as frequently dwells in holes in the ground as in cavities of trees or in hollow logs, and may occasionally be encountered well out upon the prairies, especially if there be a few persimmon trees in the vicinity. During late summer and early autumn the opossum sometimes visits the henhouse, evidently more for the purpose of obtaining eggs than for chickens.

Sciurus carolinensis Gmelin.

GRAY SQUIRREL.

Gray squirrels are common in the timber along the creeks and rivers. They seem to prefer mixed groves of sycamore and hickory, dwelling in the cavities of the former and feeding upon the nuts of the latter. They are very erratic in occurrence, being found in abundance in a given locality for a few years, then entirely disappearing to reappear in another locality. No melanistic individuals were seen.

Sciurus niger rufiventer Geoffroy.

FOX SQUIRREL.

Sciurus n. rufiventer is not as common as *Sciurus carolinensis*, but is much more regular in distribution. Fox squirrels are generally confined to oak woods among the higher ranges of hills.



Sciuropterus volans subsp.

FLYING SQUIRREL.

Having seen only one flying squirrel in the district, and not having captured that one, I am unable to refer it subspecifically. However, the rusty suffusion on the ventral surface of the tail and the dusky feet may indicate the subspecies *querceti*. The squirrel, which was closely observed, was driven from a woodpecker's hole in an old sycamore stub on the bottoms at Lakeside in Jasper County.

Tamias striatus venustus Bangs.

CHIPMUNK.

A single chipmunk taken among the wooded hills eight miles south of Carthage proves to be *Tamias s. venustus*. This specimen, a female, taken November 4, 1905, measures as follows: Total length, 218 mm.; tail vertebrae, 78.5 mm.; hind foot, 33.2 mm.

At Lakeside, Jasper County, October 15, 1904, three chipmunks were seen gathering acorns and hickory nuts along the rocky, wooded bank of Center Creek in Lakeside Park. Again on May 11, 1905, near the same locality, a *Tamias* was seen running from one hole to another on a steep, rocky bank not more than four feet above water.

Chipmunks are said to occur around Webb City.

Mus musculus Linnaeus.

HOUSE MOUSE.

This little pest is as abundant as it is useless. House mice are found not only in the towns but along every country road and hedge. I have caught them in weed patches upon the open prairie a mile from any building.

Mus norvegicus Erxleben.

NORWAY RAT.

The common brown rat of the barns and granaries, unlike the house mouse, is confined chiefly to the vicinity of human habitations. Much less generally distributed than in the northeastern States and not such a nuisance; nevertheless they are rapidly increasing in numbers.

Peromyscus michiganensis (Audubon and Bachman).

PRAIRIE WHITE-FOOTED MOUSE.

This is a common mouse of the fields and is exceeded in abundance only by *Microtus ochrogaster*. It favors patches of open brush-land but on one occasion a young male was captured under a log in heavy timber high up on a hill. Specimens taken are very nearly typical *michiganensis* with scarcely an approach towards *pallascens*. Average measurements of three males: Total length, 139.7 mm.; tail vertebrae, 52 mm.; hind foot, 17 mm. Average of two females: Total length, 143 mm.; tail vertebrae, 57 mm.; hind foot, 19 mm.

Other forms of the genus *Peromyscus* probably occur but none were taken.

Reithrodontomys intermedius Allen.

HARVEST MOUSE.

The geographical range of this harvest mouse has generally been given as, "Southern Texas from Corpus Christi southward; Rio Grande Valley to mouth of Pecos, and east to Kerr, Bexar and Bee counties. South into Mexico. Inhabits Lower Sonoran Zone."

In view of the fact that this mouse had never been recorded from the United States outside of Texas, I was somewhat surprised to find that I had four fairly typical specimens from Carthage, Jasper County, Missouri. I am indebted to Mr. W. H. Osgood, of the United States Biological Survey, for identifying them. These specimens were all taken during the autumn of 1904 and measured as follows: Adult male, total length, 154.5 mm.; tail vertebrae, 83 mm.; hind foot, 21.2 mm. Adult female (average of two), total length, 167 mm.; tail vertebrae, 93.2 mm.; hind foot, 20.8 mm. Immature female, total length, 132 mm.; tail vertebrae, 76.7 mm.; hind foot, 21.2.

Reithrodontomys intermedius is found in grassy and weedy orchards, or upon the open prairie, especially where there is a scattering growth of scrub trees. A favorite habitat is a grassy patch where an old wheat stack has once stood. All the specimens taken were trapped in holes under stumps and at no time were nests observed in the open in trees or in bushes.

Microtus ochrogaster (Wagner).

PRAIRIE VOLE.

The prairie meadow vole is undoubtedly the most abundant mammal in southwestern Missouri. It is found in every grassy tract of land and is evidently at home both near the streams and on the prairies. Specimens taken, with one exception, do not differ essentially from those taken in Wisconsin. A male taken March 4, 1905, is much grayer than typical specimens and approaches *haydeni* in color but its cranial characteristics are in keeping with *ochrogaster*. Four males average: Total length, 147.6 mm.; tail vertebrae, 30.7 mm.; hind foot, 20.2 mm. Three females average: Total length, 145.6 mm.; tail vertebrae, 33.7 mm.; hind foot, 21.5 mm.

Fiber zibethicus (Linnaeus).

MUSKRAT.

Muskrats are not uncommon along the streams, where they live in holes in the banks. Though the mercury sometimes reaches the zero mark, I have never known the muskrats to build nests in the region.

Lepus texianus melanotis Mearns.

JACK RABBIT.

Lepus t. melanotis is not rare in the prairie regions of Jasper County. It probably does not extend to the southward, for the region there is more wooded and hilly. A typical specimen of *Lepus t. melanotis* was taken November 24, 1904, on the eastern border of Jasper County. Jack rabbits are said by the natives here not to occur east of White Oak Creek. This creek lies one-half mile east of the locality from which this specimen was taken, and is close to Lawrence County. The statement is undoubtedly

correct, as the country east of White Oak Creek is very rough and partly wooded. May 25, 1905, a large *Lepus t. melanotis* was seen from a train in an old pasture about two miles north of Sheldon, Missouri.

This rabbit is confined almost entirely to the prairies; a favorite resort for the species is a wheat stubble field where it will sit motionless for hours unless disturbed. It is seldom found in tall grass, but selects a field with a low growth and with an occasional bunch of taller grass, behind which it rests, sheltered from the wind.

The flesh of *Lepus t. melanotis* is relished by the negroes, but white people of the locality seldom eat it; they fear that jack rabbits are infested with disease germs. This fear or superstition originated in the fact that this species frequently has abscesses or boils just beneath the skin, particularly in the vicinity of the sacrum. Possibly this is the source of the epidemic which occasionally breaks out in the genus *Lepus*.

The specimen above mentioned, a female, measured: Total length, 584 mm., tail vertebrae, 67 mm., hind foot, 131 mm.; ear from crown, 134 mm.

Vulpes fulvus (Desmarest).

RED FOX.

Red foxes are occasionally captured in the region and frequently seen. The writer saw one on the morning of November 7, 1905, chased by dogs through the business district of Carthage.

Procyon lotor (Linnaeus).

RACCOON.

Raccoons are very common in the heavy timber along the creeks and rivers. They are especially abundant in the bottom-lands along the White River.

Blarina brevicauda (Say).

SHORT-TAILED BLARINA.

One specimen of *Blarina brevicauda* was taken at Carthage. This one, a female, had eaten a large *Reithrodontomys* which had been caught in a trap; the trap was reset and the blarina captured while I was watching. The specimen averages a trifle smaller than typical *brevicauda*. Measurements: Total length, 106 mm.; tail vertebrae, 21.5 mm.; hind foot, 14.5 mm.

Blarina parva (Say).

SMALL BLARINA.

A pair of *Blarina parva* was trapped in an old orchard near Carthage. They are typical in every respect. Measurements: Male, total length, 76 mm.; tail vertebrae, 16 mm.; hind foot, 11.5 mm.; Female, total length, 74 mm.; tail vertebrae, 18.5 mm.; hind foot, 11.3 mm.

Scalopus aquaticus machrinus (Rafinesque).

PRAIRIE MOLE.

This species is comparatively common over the whole of Jasper County, where its ridges may be seen in almost any field, garden or orchard. Two males were taken which are nearly typical *Scalopus a. machrinus*; however these have a coppery green shade over the back, a tendency towards *Scalopus aereus* Bangs. The two specimens average: Total length, 168 mm.; tail vertebrae, 30 mm.; hind foot, 23 mm.